EYESONIC™

# User Manual

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# DVR Pre-Installation

The DS-7200HFHI-ST&SE&SL, DS-7300HFHI-ST&SL and DS-8100HFHI-ST&SL series DVR is highly advanced surveillance equipment that should be installed carefully. Please take into consideration the following precautionary steps before installation of the DVR.

1. Keep all liquids away from the DVR.
2. Install the DVR in a well-ventilated and dust-free area.
3. Ensure environmental conditions meet factory specifications.
4. Install a manufacturer recommended HDD.

# DVR Installation

During the installation of the DVR:

1. Use brackets for rack mounting.
2. Ensure there is ample room for audio and video cables.
3. When installing cables, ensure that the bend radius of the cables are no less than five times than its diameter.
4. Connect both the alarm and RS-485 cable.
5. Allow at least 2cm (≈0.75-inch) of space between racks mounted devices.
6. Ensure the DVR is grounded.
7. Environmental temperature should be within the range of -10 ℃ ~ 55 ℃, 14 ℉ ~ 131 ℉.
8. Environmental humidity should be within the range of 10% ~ 90%.

# Hard Disk Installation

***Before you start:***

Before installing a hard disk drive (HDD), please make sure the power is disconnected from the DVR. A factory recommended HDD should be used for this installation.

Up to 8 SATA hard disks can be installed on your DVR.

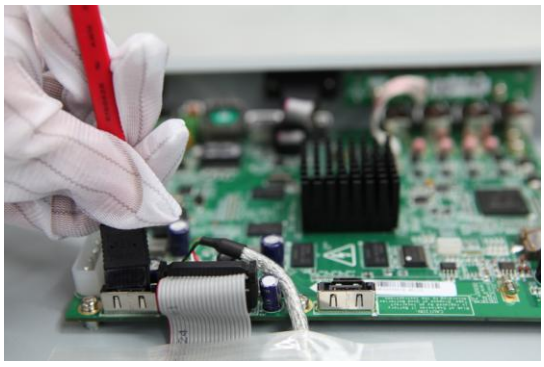
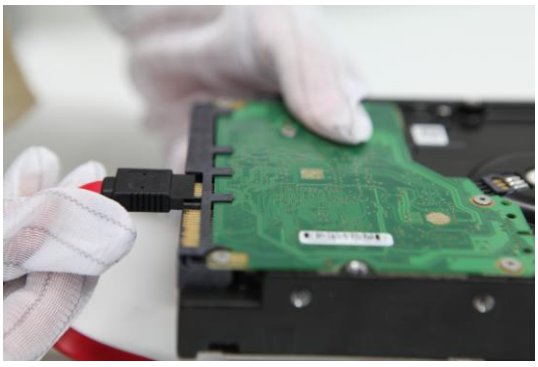
**Tools Required:** Screwdriver.

As the installation steps of HDD are similar among different models, here we take the steps of the DS-7200HFHI-SE as an example.

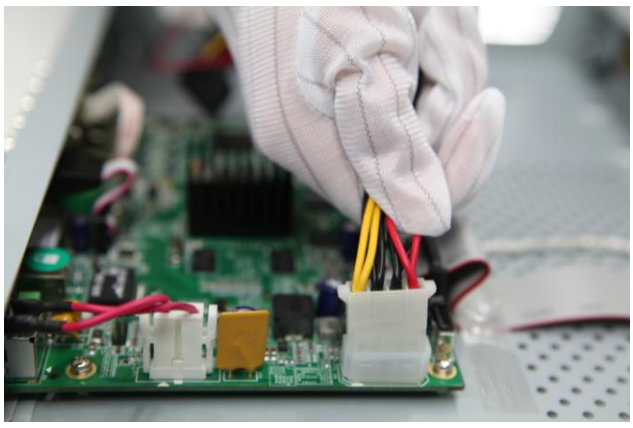
***Steps:***

1. Remove the cover from the DVR by unfastening the screws on the back and side.

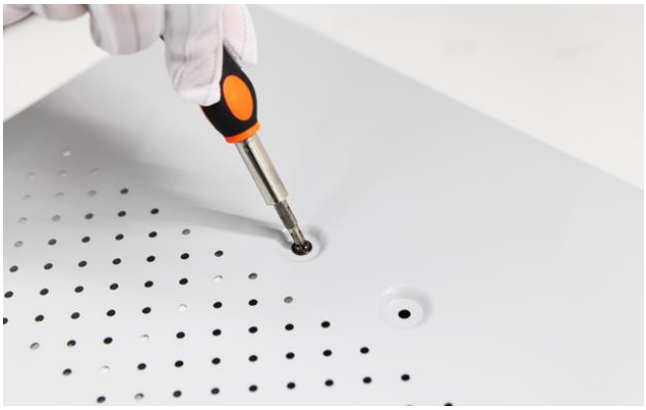
2. Connect one end of the data cable to the motherboard of DVR and the other end to the HDD.

3. Connect the power cable to the HDD.

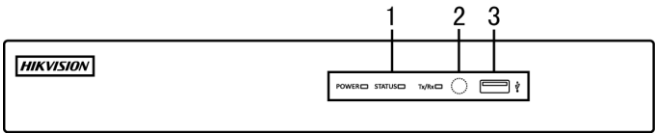


4. Place the HDD on the bottom of the device and then fasten the screws on the bottom to fix the HDD.

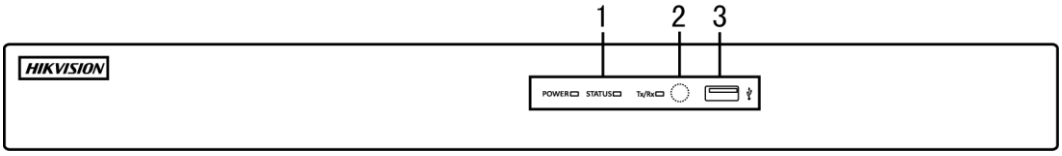


**5.** Re-install the cover of the DVR and fasten screws.

# Front Panels



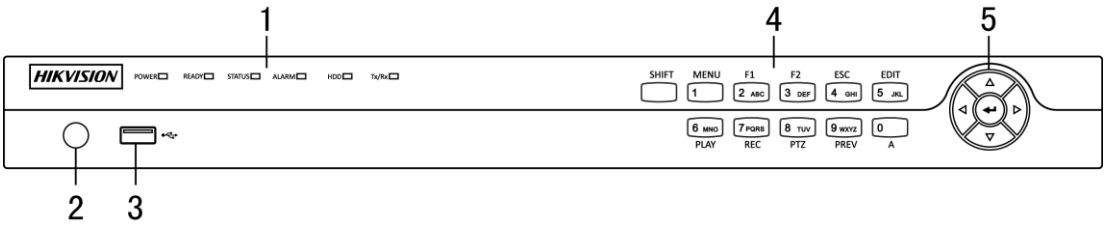

Front Panel of DS-7204HFHI-SE & DS-7200HFHI-SL




Front Panel of DS-7208HFHI-SE

Description of Front Panel

| No. | Name | Function Description |
|---|---|---|
| 1 | POWER | Power indicator turns yellow when the power switch on the real panel is turned on. |
| | STATUS | Status indicator blinks red when data is being read from or written to HDD. |
| | TX/RX | TX/RX indictor blinks yellow when network connection is functioning properly. |
| 2 | IR Receiver | Receiver for IR remote |
| 3 | USB Interfaces | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). |



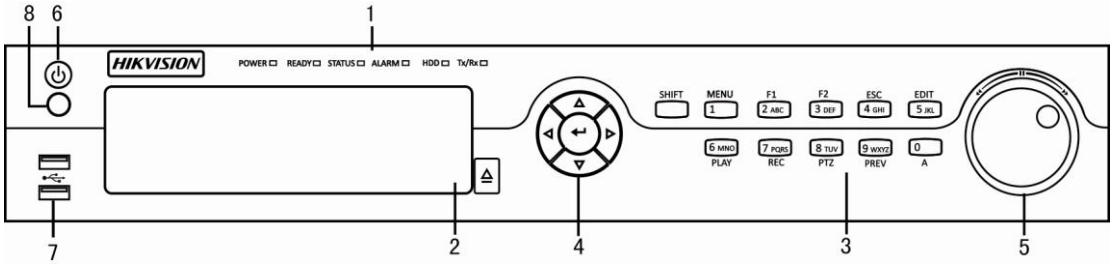

Front Panel of DS-7200HFHI-ST

Description of Control Panel Buttons

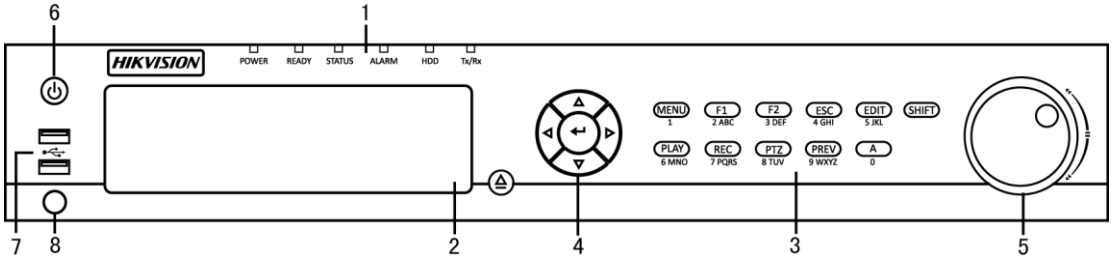
| No. | Name | Function Description |
|---|---|---|
| 1 | POWER | Power indicator turns yellow once the power switch turns on. |
| | READY | Ready indicator turns yellow when system is running. |
| | STATUS | Status indicator turns red when SHIFT mode is on. |
| | ALARM | Alarm indicator turns red when a sensor alarm is detected. |
| | HDD | HDD indicator blinks red when data is being read from or written to HDD. |
| | TX/RX | TX/RX indictor blinks yellow when network connection is functioning properly. |
| 2 | IR Receiver | Receiver for IR remote. |
| 3 | USB Interface | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). |

| No. | Name | | Function Description |
|---|---|---|---|
| 4 | Composite Keys | SHIFT | Switch between the numeric or letter input and functions of the composite keys. (Input letter or numbers when the light is out; Realize functions when the light is red.) |
| | | 1/MENU | Enter numeral “1”;<br>Access the main menu interface. |
| | | 2/ABC/F1 | Enter numeral “2”; |
| | | | Enter letters “ABC”; |
| | | | The F1 button when used in a list field will select all items in the list. |
| | | | In PTZ Control mode, it will turn on/off PTZ light and when the image is zoomed in, the key is used to zoom out. |
| | | 3/DEF/F2 | Enter numeral “3”; |
| | | | Enter letters “DEF”; |
| | | | The F2 button is used to change the tab pages. |
| | | | In PTZ control mode, it zooms in the image. |
| | | 4/GHI/ESC | Enter numeral “4”; |
| | | | Enter letters “GHI”; |
| | | | Exit and back to the previous menu. |
| | | 5/JKL/EDIT | Enter numeral “5”; |
| | | | Enter letters “JKL”; |
| | | | Delete characters before cursor; |
| | | | Check the checkbox and select the ON/OFF switch; |
| | | | Start/stop record clipping in playback. |
| | | 6/MNO/PLAY | Enter numeral “6”; |
| | | | Enter letters “MNO”; |
| | | | Playback, for direct access to all-day playback interface. |
| | | 7/PQRS/REC | Enter numeral “7”; |
| | | | Enter letters “PQRS”; |
| | | | Open the manual record interface. |
| | | 8/TUV/PTZ | Enter numeral “8”; |
| | | | Enter letters “TUV”; |
| | | | Access PTZ control interface. |
| | | 9/WXYZ/PREV | Enter numeral “9”; |
| | | | Enter letters “WXYZ”; |
| | | | Multi-channel display in live view. |
| | | 0/A | Enter numeral “0”; |
| | | | Shift the input methods in the editing text field.(Upper and lowercase, alphabet, symbols or numeric input). |
| 5 | DIRECTION | | The DIRECTION buttons are used to navigate between different fields and items in menus. |
| | | | In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files. |
| | | | In Live View mode, these buttons can be used to cycle through channels. |
| | | | In PTZ control mode, it can control the movement of the PTZ camera. |

| No. | Name | Function Description |
|---|---|---|
| | ENTER | The ENTER button is used to confirm selection in any of the menu modes. |
| | | It can also be used to *tick* checkbox fields. |
| | | In Playback mode, it can be used to play or pause the video. |
| | | In single-frame Playback mode, pressing the button will advance the video by a single frame. |
| | | In Auto-switch mode, it can be used to stop /start auto switch. |




Front Panel of DS-7300HFHI-SL



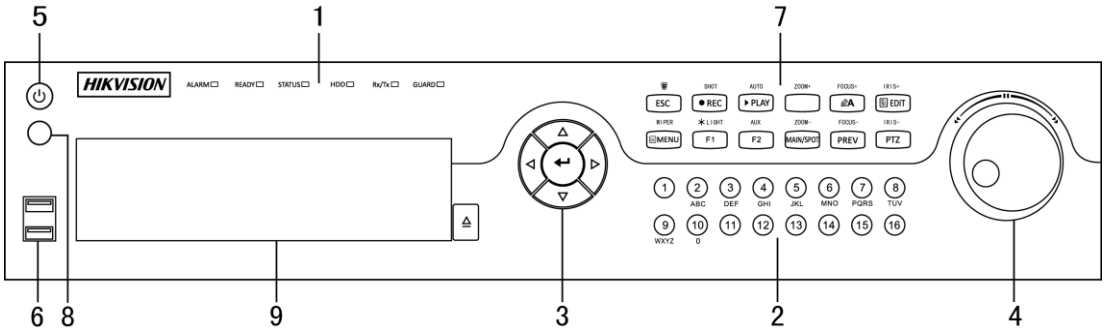

Front Panel of DS-7300HFHI-ST

Description of Front Panel

| No. | Name | Function Description |
|---|---|---|
| 1 | POWER | Power indicator lights in green when DVR is powered up. |
| | READY | Ready indicator is normally green, indicating that the DVR is functioning properly. |
| | STATUS | Indicator turns green when DVR is controlled by an IR remote control with the address from 1~254;<br>Indicator turns red when the SHIFT button is used;<br>Indicator does not light when the DVR is controlled by a keyboard or by the IR remote control with the address of 255;<br>Indicator turns green when the DVR is controlled by IR remote control (with the address from 1~254) and keyboard at the same time , and the SHIFT button is not used;<br>Indicator turns orange : (a) when the DVR is controlled by IR remote control (with the address from 1~254) and keyboard at the same time and the SHIFT button is used as well; (b) when the DVR is controlled by IR remote control (with the address from 1~254) and the SHIFT button is used. |
| | ALARM | Alarm indicator turns red when a sensor alarm is detected. |
| | HDD | HDD indicator blinks in red when data is being read from or written to HDD. |
| | TX/RX | TX/RX indictor blinks in green when network connection is functioning properly. |
| 2 | DVD-R/W | Slot for DVD-R/W. |

| No. | Name | | Function Description |
|---|---|---|---|
| 3 | Composite Keys | SHIFT | Switch between the numeric or letter input and functions of the composite keys. (Input letter or numbers when the light is out; Realize functions when the light is red.) |
| | | 1/MENU | Enter numeral “1”;<br>Access the main menu interface. |
| | | 2/ABC/F1 | Enter numeral “2”; |
| | | | Enter letters “ABC”; |
| | | | The F1 button when used in a list field will select all items in the list. |
| | | | In PTZ Control mode, it will turn on/off PTZ light and when the image is zoomed in, the key is used to zoom out. |
| | | | In live view or playback mode, the F1 button can be used to switch between main and spot video output. |
| | | 3/DEF/F2 | Enter numeral “3”; |
| | | | Enter letters “DEF”; |
| | | | The F2 button is used to change the tab pages. |
| | | | In PTZ control mode, it zooms in the image. |
| | | 4/GHI/ESC | Enter numeral “4”; |
| | | | Enter letters “GHI”; |
| | | | Exit and back to the previous menu. |
| | | 5/JKL/EDIT | Enter numeral “5”; |
| | | | Enter letters “JKL”; |
| | | | Delete characters before cursor; |
| | | | Check the checkbox and select the ON/OFF switch; |
| | | | Start/stop record clipping in playback. |
| | | 6/MNO/PLAY | Enter numeral “6”; |
| | | | Enter letters “MNO”; |
| | | | In Playback mode, it is used for direct access to playback interface. |
| | | 7/PQRS/REC | Enter numeral “7”; |
| | | | Enter letters “PQRS”; |
| | | | Manual record, for direct access to manual record interface; manually enable/disable record. |
| | | 8/TUV/PTZ | Enter numeral “8”; |
| | | | Enter letters “TUV”; |
| | | | Access PTZ control interface. |
| | | 9/WXYZ/PREV | Enter numeral “9”; |
| | | | Enter letters “WXYZ”; |
| | | | Multi-channel display in live view. |
| | | 0/A | Enter numeral “0”; |
| | | | Shift the input methods in the editing text field. (Upper and lowercase, alphabet, symbols or numeric input). |
| 4 | DIRECTION | | The DIRECTION buttons are used to navigate between different fields and items in menus. |
| | | | In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files. |
| | | | In Live View mode, these buttons can be used to cycle through channels. |

| No. | Name | Function Description |
|---|---|---|
| | | In PTZ control mode, it can control the movement of the PTZ camera. |
| | **ENTER** | The ENTER button is used to confirm selection in any of the menu modes. |
| | | It can also be used to *tick* checkbox fields. |
| | | In Playback mode, it can be used to play or pause the video. |
| | | In single-frame Playback mode, pressing the button will advance the video by a single frame. |
| | | In Auto-switch mode, it can be used to stop /start auto switch. |
| **5** | **POWER** | Power on/off switch. |
| **6** | **JOG SHUTTLE Control** | Move the active selection in a menu. It will move the selection up and down. |
| | | In Live View mode, it can be used to cycle through different channels. |
| | | In the Playback mode, it can be used to jump 30s forward/backward in video files. |
| | | In PTZ control mode, it can control the movement of the PTZ camera. |
| **7** | **USB Interface** | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). |
| **8** | **IR Receiver** | Receiver for IR remote control. |




Front Panel of DS-8100HFHI-ST & SL

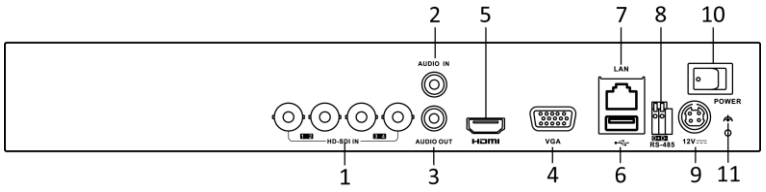
Description of Front Panel

| No. | Name | | Function Description |
|---|---|---|---|
| 1 | **Status Indicators** | **ALARM** | Alarm indicator turns red when a sensor alarm is detected. |
| | | **READY** | Ready indicator is normally blue, indicating that the DVR is functioning properly. |
| | | **STATUS** | Indicator turns blue when DVR is controlled by an IR remote.<br>Indicator turns red when controlled by a keyboard and orange when IR remote and keyboard is used at the same time.<br>Indicator does not light when the DVR is controlled by the IR remote control with the address of 255. |
| | | **HDD** | HDD indicator blinks in red when data is being read from or written to HDD. |
| | | **TX/RX** | TX/RX indictor blinks in blue when network connection is functioning properly. |
| | | **GUARD** | Indicator turns blue when the device is armed;<br>Indicator does not light when the device is disarmed;<br>The arm/disarm state can be initiated by pressing and holding on the ESC button for more than 3 seconds in live view mode. |
| 2 | **Alphanumeric Buttons** | | Switch to the corresponding channel in Live view or PTZ Control mode. |

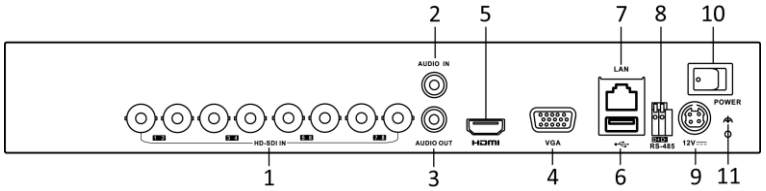
| No. | Name | | Function Description |
|---|---|---|---|
| | | | Input numbers and characters in Edit mode. |
| | | | Switch between different channels in Playback mode. |
| | | | The light of the button is blue when the corresponding channel is recording; it is red when the channel is in network transmission status; it is pink when the channel is recording and transmitting. |
| 3 | **Control Buttons** | **DIRECTION** | The DIRECTION buttons are used to navigate between different fields and items in menus. |
| | | | In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files. |
| | | | In Live View mode, these buttons can be used to cycle through channels. |
| | | | In PTZ control mode, it can control the movement of the PTZ camera. |
| | | **ENTER** | The ENTER button is used to confirm selection in any of the menu modes. |
| | | | It can also be used to *tick* checkbox fields. |
| | | | In Playback mode, it can be used to play or pause the video. |
| | | | In single-frame Playback mode, pressing the button will advance the video by a single frame. |
| | | | In Auto-switch mode, it can be used to stop /start auto switch. |
| 4 | **JOG SHUTTLE Control** | | Move the active selection in a menu. It will move the selection up and down. |
| | | | In Live View mode, it can be used to cycle through different channels. |
| | | | In the Playback mode: the outer ring is used to speed up or slow down the record files and the inner ring is used to jump 30s forward/backward in records files. |
| | | | In PTZ control mode, it can control the movement of the PTZ camera. |
| 5 | **POWER** | | Power on/off switch. |
| 6 | **USB Interfaces** | | Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD). |
| **7** | **Composite Keys** | **ESC** | Exit and back to the previous menu. |
| | | | Arm/disarm the DVR in live view mode. |
| | | **REC/SHOT** | Enter the Manual Record setting menu. |
| | | | In PTZ control settings, press the button and then you can call a PTZ preset by pressing Numeric button. |
| | | | It is also used to turn audio on/off in the Playback mode. |
| | | **PLAY/AUTO** | Enter the Playback menu; |
| | | | Auto scan in the PTZ Control mode. |
| | | **ZOOM+** | Zoom in the PTZ camera in the PTZ Control setting. |
| | | **A/FOCUS+** | Adjust focus in the PTZ Control menu. |
| | | | It is also used to switch between input methods (upper and lowercase alphabet, symbols and numeric input). |

| No. | Name | | Function Description |
|---|---|---|---|
| | | **EDIT/IRIS+** | Edit text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor. |
| | | | On checkbox fields, pressing the button will *tick* the checkbox. |
| | | | In PTZ Control mode, the button adjusts the iris of the camera. |
| | | | In Playback mode, it can be used to generate video clips for backup. |
| | | | Enter/exit the folder of USB device and eSATA HDD. |
| | | **MAIN/SPOT/ZOOM-** | Switch between main and spot output. |
| | | | In PTZ Control mode, it can be used to zoom out the image. |
| | | **F1/ LIGHT** | Select all items on the list when used in a list field. |
| | | | In PTZ Control mode, it will turn on/off PTZ light (if applicable). |
| | | | In Playback mode, it is used to switch between play and reverse play. |
| | | **F2/ AUX** | Cycle through tab pages. |
| | | | In synchronous playback mode, it is used to switch between channels. |
| | | **MENU/WIPER** | Press the button will help you return to the Main menu (after successful login). |
| | | | Press and hold the button for 5 seconds will turn off audible key beep. |
| | | | In PTZ Control mode, the MENU/WIPER button will start wiper (if applicable). |
| | | | In Playback mode, it is used to show/hide the control interface. |
| | | **PREV/FOCUS-** | Switch between single screen and multi-screen mode. |
| | | | In PTZ Control mode, it is used to adjust the focus in conjunction with the A/FOCUS+ button. |
| | | **PTZ/IRIS-** | Enter the PTZ Control mode. |
| | | | In the PTZ Control mode, it is used to adjust the iris of the PTZ camera. |
| **8** | **IR Receiver** | | Receiver for IR remote control. |
| **9** | **DVD-R/W** | | Slot for DVD-R/W. |

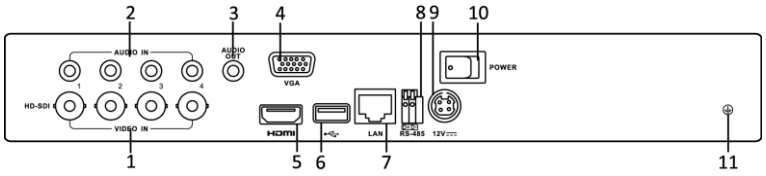
# Rear Panels



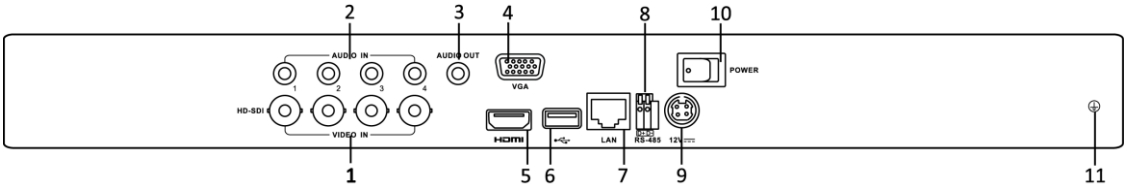

**DS-7204HFHI-SL**



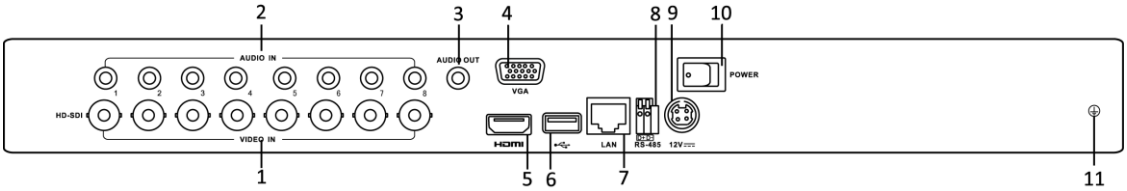

**DS-7208HFHI-SL**




**DS-7204HFHI-SE**

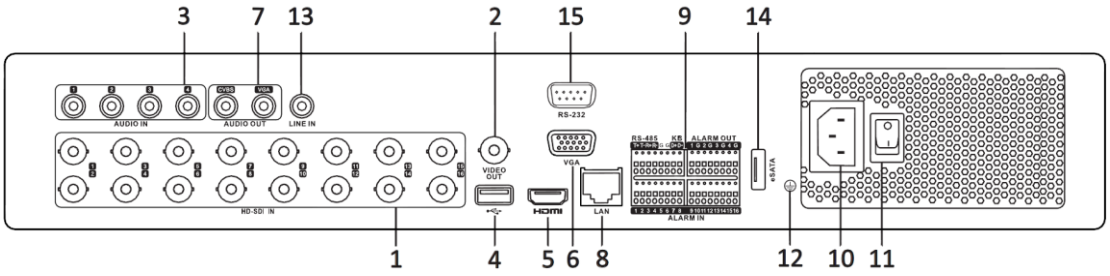



**DS-7204HFHI-ST**

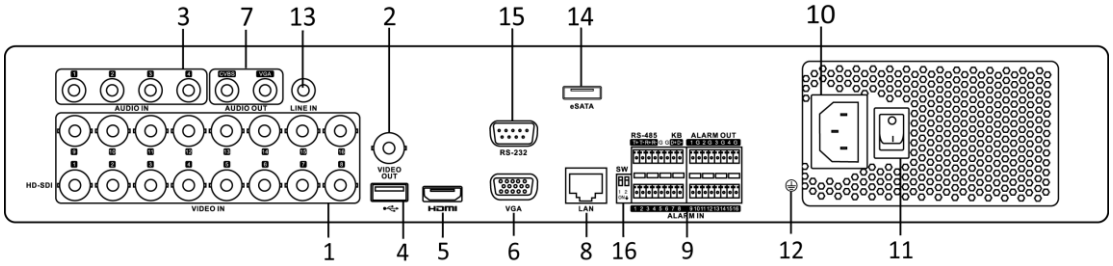



**DS-7208HFHI-SE and DS-7208HFHI-ST**

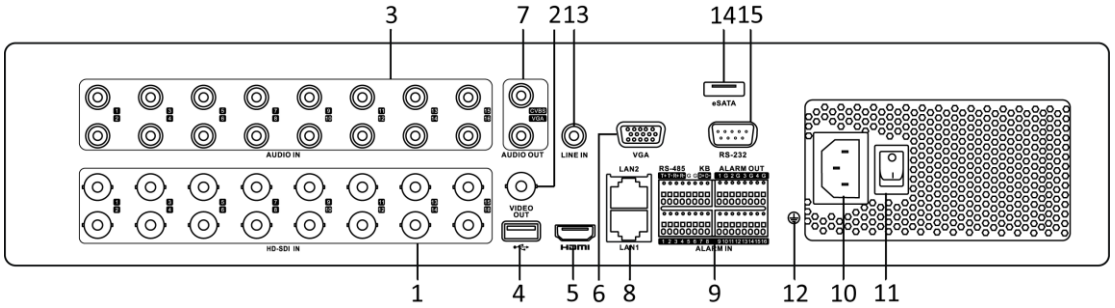
| No. | Item | Description |
|---|---|---|
| 1 | **VIDEO IN** | HD-SDI interface for video input. |
| 2 | **AUDIO IN** | RCA connector |
| 3 | **AUDIO OUT** | RCA connector |
| 4 | **VGA** | DB15 connector for VGA output. Display local video output and menu. |
| 5 | **HDMI** | HDMI video output connector. |
| 6 | **USB Port** | Universal Serial Bus (USB) port for additional devices. |
| 7 | **Network Interface** | Connector for network |
| 8 | **RS-485 Interface** | Connector for RS-485 devices. |
| 9 | **Power Supply** | DC 12V power supply. |
| 10 | **Power Switch** | Switch for turning on/off the device. |
| 11 | **GND** | Ground |



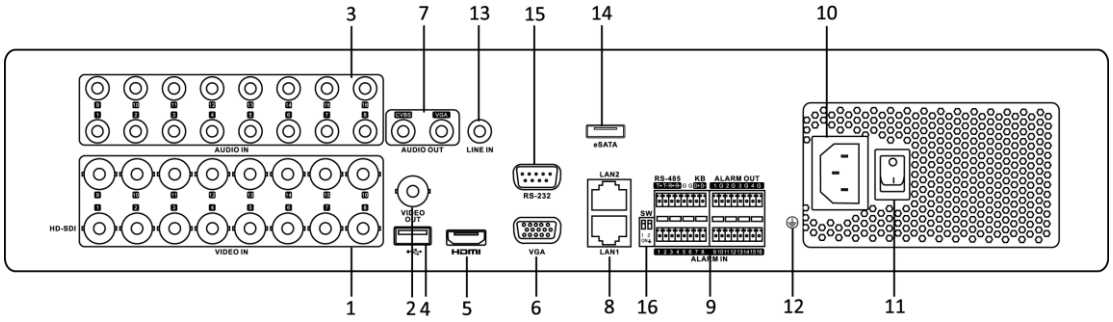

**DS-7300HFHI-SL**




**DS-7300HFHI-ST**




**DS-8100HFHI-SL**




**DS-8100HFHI-ST**

| No. | Item | Description |
|---|---|---|
| 1 | **VIDEO IN** | HD-SDI interface for video input. |
| 2 | **VIDEO OUT** | BNC connector for video output. |
| 3 | **AUDIO IN** | RCA connector |
| 4 | **USB Port** | Universal Serial Bus (USB) port for additional devices. |
| 5 | **HDMI** | HDMI video output connector. |
| 6 | **VGA** | DB15 connector for VGA output. Display local video output and menu. |
| 7 | **AUDIO OUT** | RCA connector |
| 8 | **Network Interface** | Connector for network |
| 9 | **RS-485 Interface** | Connector for RS-485 devices. T+ and T- pins connect to R+ and R- |

| No. | Item | Description |
|---|---|---|
| | | pins of PTZ receiver respectively. |
| | | D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first DVR's D+, D- pin should be connected with the D+, D- pin of the next DVR. |
| | | Connector for alarm input. |
| | | Connector for alarm output. |
| **10** | **Power Supply** | AC 100 ~ 240V power supply. |
| **11** | **Power Switch** | Switch for turning on/off the device. |
| **12** | **GND** | Ground |
| **13** | **LINE IN** | BNC connector for audio input. |
| **14** | **eSATA** | Connects external SATA HDD, CD/DVD-RW. |
| **15** | **RS-232 Interface** | Connector for RS-232 devices. |
| **16** | **Termination Switch (for DS-7300HFHI-ST and DS-8100HFHI-ST)** | RS-485 termination switch.<br>Up position is not terminated.<br>Down position is terminated with 120Ω resistance. |

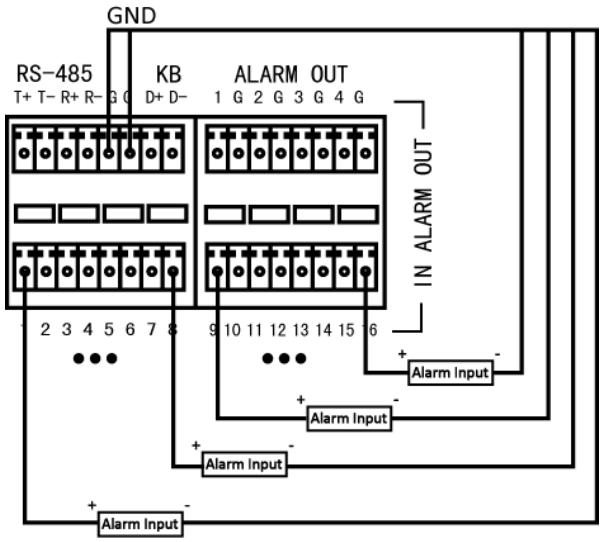
# Peripheral Connections

## Wiring of Alarm Input

The alarm input is an open/closed relay. To connect the alarm input to the device, use the following diagram.

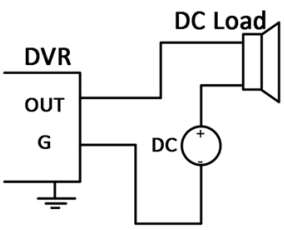
NOTE

If the alarm input is not an open/close relay, please connect an external relay between the alarm input and the device.

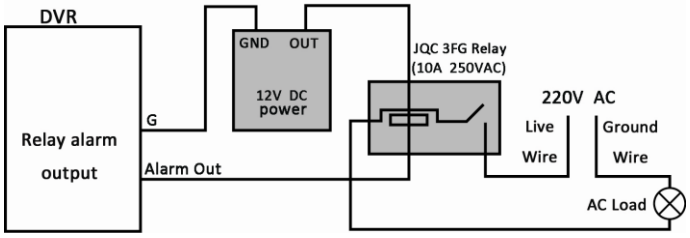



## Wiring of Alarm Output

To connect to an alarm output (AC or DC load), use the following diagram:




**DC Load Connection Diagram**




**AC Load Connection Diagram**

For DC load, the jumpers can be used within the limit of 12V/1A safely.

To connect an AC load, jumpers should be left open (you must remove the jumper on the motherboard in the DVR). Use an external relay for safety (as shown in the figure above).

There are 4 jumpers (JP1, JP2, JP3, and JP4) on the motherboard, each corresponding with one alarm output. By default, jumpers are connected. To connect an AC load, jumpers should be removed.

***Example:***

If you connect an AC load to the alarm output 3 of the DVR, then you must remove the JP 3.

## Alarm Connection

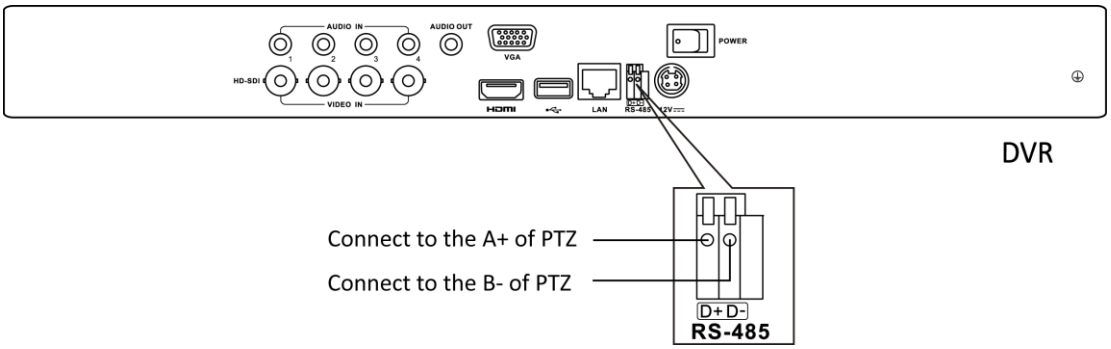
To connect alarm devices to the DVR:

1. Disconnect *pluggable block* from the ALARM IN /ALARM OUT terminal block.
2. Press and hold the orange part of the *pluggable block*; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.

3. Connect *pluggable block* back into terminal block.

## RS-485 and Controller Connection

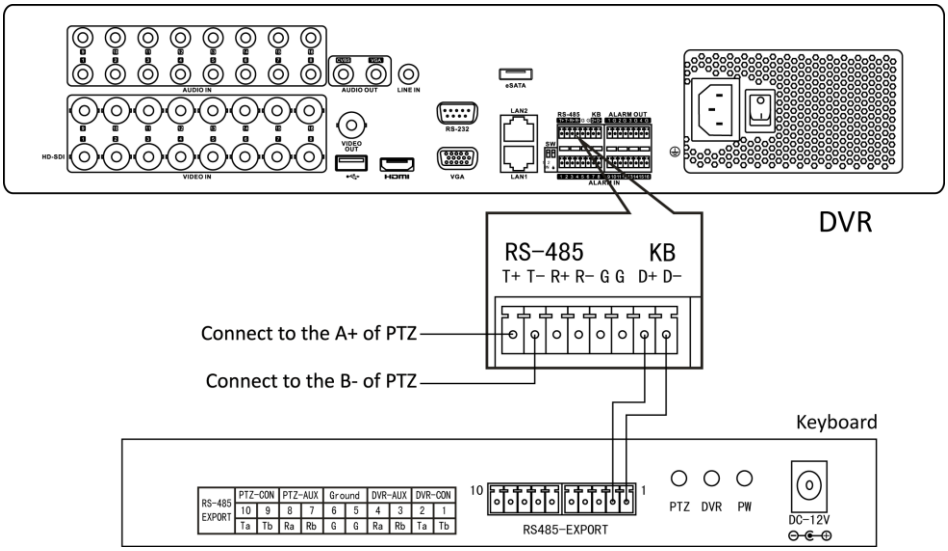
**For DS-7200HFHI-SL, DS-7200HFHI-SE & DS-7200HFHI-ST**




**To connect PTZ to the DVR:**

1. Disconnect *pluggable block* from the RS-485 terminal block.
2. Press and hold the orange part of the *pluggable block*; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect A+ on PTZ to D+ on terminal block and B- on controller to D- on terminal block. Fasten stop screws.
4. Connect *pluggable block* back into terminal block.

**For DS-7300HFHI-ST&SL & DS-8100HFHI-ST&SL**




**To connect PTZ to the DVR:**

1. Disconnect *pluggable block* from the RS-485 terminal block.
2. Press and hold the orange part of the *pluggable block*; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect A+ on PTZ to T+ on terminal block and B- on controller to T- on terminal block. Fasten stop screws.
4. Connect *pluggable block* back into terminal block.

**To connect a controller to the DVR:**

1. Disconnect *pluggable block* from the KB terminal block.

2. Press and hold the orange part of the *pluggable block*; insert signal cables into slots and release the orange part. Ensure signal cables are in tight.
3. Connect Ta on controller to D+ on terminal block and Tb on controller to D- on terminal block. Fasten stop screws.
4. Connect *pluggable block* back into terminal block.

NOTE

Make sure both the controller and DVR are grounded. Here we take the controller connection of the DS-8100HFHI-ST as an example.

## Termination Switch Operation

NOTE

This function is applicable to the DS-7300HFHI-ST&SL and DS-8100HFHI-ST&SL.

***Purpose:***

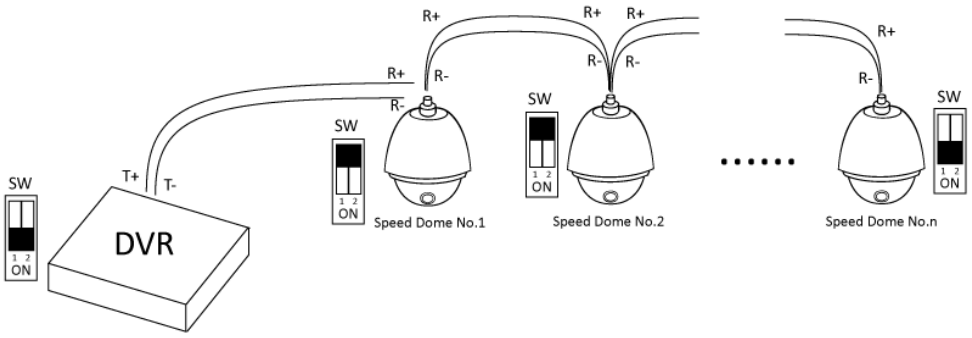
To connect the DVR with several speed domes, the bus topology can be adopted, which means the speed domes are connected with each other via the R+ and R- of RS-485 serial interface. But due to the impedance of 485 wire, the longer the wire is, the greater the impedance gets.

To avoid the signal reduction caused by the great impedance of long distance transmission, please connect two 120Ω resistors in the circuit: one resistor between the DVR and the nearest speed dome, and the other one after the furthest speed dome.

***Steps:***

1. Turn on the SW switches on the DVR and the furthest speed dome.
2. Keep other SW switches off.

The connection diagram and status of each SW switch are shown in the following figure.




NOTE

For the DS-7300HFHI-SL and DS-8100HFHI-SL series DVR, the termination switch is placed on the mainboard instead of the rear panel. Open the upper cover and turn on/off the SW switch if needed.

# Specifications

## Table 1 Specification for DS-7200HFHI-SL

| Model | | DS-7204HFHI-SL | DS-7208HFHI-SL |
|---|---|---|---|
| Video/Audio input | Video compression | H.264 | |
| | HD-SDI video input | 4-ch | 8-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | |
| | Supported HD-SDI camera types | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | |
| | Audio compression | G.711u | |
| | Audio in / Two-way audio in | 1-ch, RCA (2.0 Vp-p, 1 KΩ) | |
| Video/Audio output | HDMI / VGA output | 1920 ×1080 / 60 Hz, 1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | |
| | Encoding resolution | Main stream: 1080P@12fps / 720P / VGA / WD1 / 4CIF / CIF | |
| | | Sub-stream: WD1(non-real-time) / 4CIF(non-real-time) / CIF / QCIF / QVGA | |
| | Frame rate | Main stream: 1/16 fps ~ Real time frame rate | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | |
| | Video bitrate | 32 Kbps-6 Mbps | |
| | Audio output | 1-ch, RCA (Linear, 1KΩ) | |
| | Audio bitrate | 64 Kbps | |
| | Dual-stream | Support | |
| | Stream type | Video, Video & Audio | |
| | Synchronous playback | 4-ch | |
| | Playback resolution | 1080P / 720P / WD1 / 4CIF / VGA / CIF / QVGA / QCIF | |
| Network management | Remote connection | 128 | |
| | Network protocols | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | |
| Hard disk | SATA | 1 SATA interface | |
| | Capacity | Up to 4 TB capacity for each disk | |
| External interface | Network interface | 1; 10M/100Mbps self-adaptive Ethernet interface | 1; 10M/100M/1000Mbps self-adaptive Ethernet interface |
| | Serial interface | 1; standard RS-485 serial interface, half-duplex | |
| | USB port | 2 ×USB2.0 | |
| General | Power supply | 12V DC | |
| | Consumption (without hard disk) | Max. 15W | Max. 20W |
| | Working temperature | -10 ℃ ~+55 ℃ (14 ℉ ~ 131 ℉) | |
| | Working humidity | 10% ~ 90% | |
| | Chassis | Stand-alone 1U chassis | |
| | Dimensions | 315×242×45 mm (12.3×9.5×1.8 inch) | |

| | | |
|---|---|---|
| | **(W × D × H)** | |
| | **Weight (without hard disks)** | 1 kg / 2.2lb |

## Table 2 Specification for DS-7200HFHI-SE

| **Model** | | **DS-7204HFHI-SE** | **DS-7208HFHI-SE** |
|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | |
| | **HD-SDI video input** | 4-ch | 8-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | |
| | **Audio compression** | G.711u | |
| | **Audio input** | 4-ch | 8-ch |
| | | RCA (2.0 Vp-p, 1 KΩ) | |
| | **Two-way audio input** | 1-ch, RCA (2.0 Vp-p, 1 KΩ), (using the 1st channel of audio input) | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 × 1080 / 60 Hz,1280 × 1024 / 60 Hz, 1280 × 720 / 60 Hz, 1024 × 768 / 60 Hz | |
| | **Encoding resolution** | Main stream: 1080P@12fps / 720P / VGA / WD1 / 4CIF / CIF | |
| | | Sub-stream: WD1(non-real-time) / 4CIF(non-real-time) / CIF / QCIF / QVGA | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | |
| | **Video bitrate** | 32 Kbps-6 Mbps | |
| | **Audio output** | 1-ch, RCA (Linear, 1KΩ) | |
| | **Audio bitrate** | 64 Kbps | |
| | **Dual-stream** | Support | |
| | **Stream type** | Video, Video & Audio | |
| | **Synchronous playback** | 4-ch (up to 2-ch 720P real time) | 8-ch (up to 2-ch 720P real time) |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | |
| **Network management** | **Remote connection** | 128 | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | |
| **Hard disk** | **SATA** | 1 SATA interface | 2 SATA interfaces |
| | **Capacity** | Up to 4 TB capacity for each disk | |
| **External interfaces** | **Network interface** | 1; 10M / 100M / 1000M self-adaptive Ethernet interface | |
| | **Serial interface** | 1; standard RS-485 serial interface, half-duplex | |
| | **USB port** | 2 × USB2.0 | |
| | **Alarm in / out (optional)** | 4 / 1 | |
| **General** | **Power supply** | 12V DC | |
| | **Consumption (without** | Max. 15 W | Max. 20 W |

| | | | |
|---|---|---|---|
| | **hard disk)** | | |
| | **Working temperature** | -10 ℃~+55 ℃(14 ℉~131 ℉) | |
| | **Working humidity** | 10% ~ 90% | |
| | **Chassis** | Stand-alone 1U chassis | 19-inch rack-mounted 1U chassis |
| | **Dimensions (W ×D ×H)** | 315×230×45 mm (12.3×9.0×1.8 inch) | 445×290×45mm (17.3×11.3×1.8 inch) |
| | **Weight (without hard disk)** | 2 kg / 4.4lb | 4 kg / 8.8lb |

## Table 3 Specification for DS-7200HFHI-ST

| **Model** | | DS-7204HFHI-ST | DS-7208HFHI-ST |
|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | |
| | **HD-SDI video input** | 4-ch | 8-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | |
| | **Audio compression** | G.711u | |
| | **Audio input** | 4-ch | 8-ch |
| | | RCA (2.0 Vp-p, 1 KΩ) | |
| | **Two-way audio in** | 1-ch, RCA (2.0 Vp-p, 1 KΩ), (using the 1st channel of audio input) | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 ×1080 / 60 Hz,1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | |
| | **Encoding resolution** | Main stream: 1080P / 720P / VGA / WD1 / 4CIF / CIF | |
| | | Sub-stream: WD1(non-real-time) /4CIF(non-real-time) / CIF / QCIF / QVGA | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | |
| | **Video bitrate** | 32 Kbps-10 Mbps | |
| | **Audio output** | 1-ch, RCA (Linear, 1KΩ) | |
| | **Audio bitrate** | 64 Kbps | |
| | **Dual-stream** | Support | |
| | **Stream type** | Video, Video & Audio | |
| | **Synchronous playback** | 4-ch (up to 2-ch 1080P real time) | 8-ch (up to 2-ch 1080P real time) |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | |
| **Network management** | **Remote connection** | 128 | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, | |

| | | | |
|---|---|---|---|
| | | NFS, iSCSI, UPnP™ | |
| **Hard disk** | **SATA** | 2 SATA interfaces | |
| | **Capacity** | Up to 4 TB capacity for each disk | |
| **External interfaces** | **Network interface** | 1; 10M / 100M / 1000M self-adaptive Ethernet interface | |
| | **Serial interface** | 1; standard RS-485 serial interface, half-duplex | |
| | **USB port** | 2 ×USB2.0 | |
| | **Alarm in / out (optional)** | 4 / 1 | |
| **General** | **Power supply** | 12V DC | |
| | **Consumption (without hard disk)** | Max. 15 W | Max. 20 W |
| | **Working temperature** | -10 ℃ ~ +55 ℃ (14 ℉ ~ 131 ℉) | |
| | **Working humidity** | 10% ~ 90% | |
| | **Chassis** | 19-inch rack-mounted 1U chassis | |
| | **Dimensions (W ×D ×H)** | 445 ×290 ×45 mm (17.5 ×11.4 ×1.8 inch) | |
| | **Weight (without hard disk)** | 4 kg / 8.8lb | |

## Table 4 Specification for DS-7300HFHI-SL

| **Model** | | **DS-7304HFHI-SL** | **DS-7308HFHI-SL** | **DS-7316HFHI-SL** |
|---|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | | |
| | **HD-SDI video input** | 4-ch | 8-ch | 16-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | | |
| | **Audio compression** | G.711u | | |
| | **Audio input** | 4-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| | **Two-way audio in** | 1-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 ×1080 / 60 Hz ,1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | | |
| | **CVBS output** | 1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 ×480 | | |
| | **Encoding resolution** | Main stream: 1080P (non-real-time) / 720P / VGA / WD1 / 4CIF / CIF | | |
| | | Sub-stream: WD1 (non-real-time)/ 4CIF(non-real-time) / CIF / QCIF / QVGA | | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | | |
| | **Video bitrate** | 32 Kbps-6 Mbps | | |
| | **Audio output** | 2-ch, RCA (Linear, 1KΩ, for VGA output and CVBS output respectively) | | |

| | | | | |
|---|---|---|---|---|
| | **Audio bitrate** | 64 Kbps | | |
| | **Dual-stream** | Support | | |
| | **Stream type** | Video, Video & Audio | | |
| | **Synchronous playback** | 4-ch | 8-ch | 16-ch |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | | |
| **Network management** | **Remote connection** | 128 | | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | | |
| **Hard disk** | **Type** | 4 SATA interfaces for 4 HDDs; 1 eSATA interface | | |
| | **Capacity** | Up to 4 TB capacity for each disk | | |
| **External interface** | **Network interface** | 1; 10M / 100M / 1000M self-adaptive Ethernet interface | | |
| | **Serial interface** | RS-232, RS-485, Keyboard | | |
| | **USB port** | 3 ×USB2.0 | | |
| | **Alarm in / out** | 16 / 4 | | |
| **General** | **Power supply** | 100 ~ 240VAC, 47 ~ 63HZ | | |
| | **Consumption (without hard disks)** | ≤30W | ≤40W | ≤55W |
| | **Working temperature** | -10 ℃~+55 ℃(14 ℉~ 131 ℉) | | |
| | **Working humidity** | 10% ~ 90% | | |
| | **Chassis** | 19-inch rack-mounted 1.5U chassis | | |
| | **Dimensions (W ×D ×H)** | 445 ×390 ×70 mm (17.5 ×15.3 ×2.7 inch) | | |
| | **Weight (without hard disks or DVD-R/W)** | ≤5Kg | | |

## Table 5 Specification for DS-7300HFHI-ST

| **Model** | | **DS-7304HFHI-ST** | **DS-7308HFHI-ST** | **DS-7316HFHI-ST** |
|---|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | | |
| | **HD-SDI video input** | 4-ch | 8-ch | 16-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | | |
| | **Audio compression** | G.711u | | |
| | **Audio input** | 4-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| | **Two-way audio in** | 1-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 ×1080 / 60 Hz (1080P),1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | | |
| | **CVBS output** | 1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 ×576, NTSC: 704 ×480 | | |
| | **Encoding resolution** | Main stream: 1080P / 720P / VGA / WD1 / 4CIF / CIF | | |
| | | Sub-stream: WD1(non-real-time) / 4CIF(non-real-time) / CIF / | | |

| | | | | |
|---|---|---|---|---|
| | | QCIF / QVGA | | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | | |
| | **Video bitrate** | 32 Kbps-10 Mbps | | |
| | **Audio output** | 2-ch, RCA (Linear, 1KΩ, for VGA output and CVBS output respectively) | | |
| | **Audio bitrate** | 64 Kbps | | |
| | **Dual-stream** | Support | | |
| | **Stream type** | Video, Video & Audio | | |
| | **Synchronous playback** | 4-ch | 8-ch | 16-ch |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | | |
| **Network management** | **Remote connection** | 128 | | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | | |
| **Hard disk** | **Type** | 4 SATA interfaces for 4 HDDs; 1 eSATA interface | | |
| | **Capacity** | Up to 4 TB capacity for each disk | | |
| **External interface** | **Network interface** | 1; 10M / 100M / 1000M self-adaptive Ethernet interface | | |
| | **Serial interface** | RS-232, RS-485, Keyboard | | |
| | **USB port** | 3 ×USB2.0 | | |
| | **Alarm in / out** | 16 / 4 | | |
| **General** | **Power supply** | 100 ~ 240VAC, 47 ~ 63HZ | | |
| | **Consumption (without hard disks)** | Max. 35W | Max. 45W | Max. 65W |
| | **Working temperature** | -10 ℃ ~+55 ℃ (14 ℉ ~ 131 ℉) | | |
| | **Working humidity** | 10% ~ 90% | | |
| | **Chassis** | 19-inch rack-mounted 1.5U chassis | | |
| | **Dimensions (W ×D ×H)** | 445 ×390 ×70 mm (17.5 ×15.3 ×2.7 inch) | | |
| | **Weight (without hard disks or DVD-R/W)** | ≤5Kg | | |

## Table 6 Specification for DS-8100HFHI-SL

| **Model** | | **DS-8104HFHI-SL** | **DS-8108HFHI-SL** | **DS-8116HFHI-SL** |
|---|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | | |
| | **HD-SDI video input** | 4-ch | 8-ch | 16-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | | |
| | **Audio compression** | G.711u | | |
| | **Audio input** | 4-ch | 8-ch | 16-ch |
| | | RCA (2.0 Vp-p, 1 KΩ) | | |

| Model | | DS-8104HFHI-SL | DS-8108HFHI-SL | DS-8116HFHI-SL |
|---|---|---|---|---|
| | **Two-way audio in** | 1-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 ×1080 / 60 Hz, 1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | | |
| | **CVBS output** | 1-ch, BNC (1.0 Vp-p, 75 Ω), resolution: PAL: 704 × 576, NTSC: 704 ×480 | | |
| | **Encoding resolution** | Main stream: 1080P (non-real-time) / 720P / WD1/ VGA / 4CIF / CIF | | |
| | | Sub-stream: WD1(non-real-time) / 4CIF(non-real-time) / CIF / QCIF / QVGA | | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | | |
| | **Video bitrate** | 32 Kbps-6Mbps | | |
| | **Audio output** | 2-ch, RCA (Linear, 1KΩ, for VGA output and CVBS output respectively) | | |
| | **Audio bitrate** | 64 Kbps | | |
| | **Dual-stream** | Support | | |
| | **Stream type** | Video, Video & Audio | | |
| | **Synchronous playback** | 4-ch | 8-ch | 16-ch |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | | |
| **Network management** | **Remote connection** | 128 | | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | | |
| **Hard disk** | **Type** | 8 SATA interfaces for 8 HDDs; 1 eSATA interface | | |
| | **Capacity** | Up to 4 TB capacity for each disk | | |
| **External interface** | **Network interface** | 2; 10M / 100M / 1000M self-adaptive Ethernet interfaces | | |
| | **Serial interface** | RS-232, RS-485, Keyboard; | | |
| | **USB port** | 3 ×USB2.0 | | |
| | **Alarm in / out** | 16 / 4 | | |
| **General** | **Power supply** | 100 ~ 240VAC, 47 ~ 63HZ | | |
| | **Consumption (without hard disks)** | ≤ 30W | ≤ 40W | ≤ 55W |
| | **Working temperature** | -10 ℃~+55 ℃(14 ℉~ 131 ℉) | | |
| | **Working humidity** | 10% ~ 90% | | |
| | **Chassis** | 19-inch rack-mounted 2U chassis | | |
| | **Dimensions (W ×D ×H)** | 445 ×470 ×90 mm (17.5 ×18.5 ×3.5 inch) | | |
| | **Weight (without hard disks or DVD-R/W)** | ≤8Kg | | |

## Table 7 Specification for DS-8100HFHI-ST

| Model | | DS-8104HFHI-ST | DS-8108HFHI-ST | DS-8116HFHI-ST |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| **Video/Audio input** | **Video compression** | H.264 | | |
| | **HD-SDI video input** | 4-ch | 8-ch | 16-ch |
| | | HD-SDI interface (800 mVp-p, 75 Ω) | | |
| | **Supported HD-SDI camera types** | 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50, 720P30, 720P25 | | |
| | **Audio compression** | G.711u | | |
| | **Audio input** | 4-ch | 8-ch | 16-ch |
| | | RCA (2.0 Vp-p, 1 KΩ) | | |
| | **Two-way audio in** | 1-ch, RCA (2.0 Vp-p, 1 KΩ) | | |
| **Video/Audio output** | **HDMI / VGA output** | 1920 ×1080 / 60 Hz (1080P),1280 ×1024 / 60 Hz, 1280 ×720 / 60 Hz, 1024 ×768 / 60 Hz | | |
| | **CVBS output** | 1-ch, BNC (1.0 Vp-p, 75 Ω)<br>Resolution: PAL: 704 ×576, NTSC: 704 ×480 | | |
| | **Encoding resolution** | Main stream: 1080P / 720P / VGA / WD1 / 4CIF / CIF | | |
| | | Sub-stream: WD1(non-real-time) / 4CIF(non-real-time) / CIF / QCIF / QVGA | | |
| | **Frame rate** | Main stream: 1/16 fps ~ Real time frame rate | | |
| | | Sub-stream: 1/16 fps ~ Real time frame rate | | |
| | **Video bitrate** | 32 Kbps-10 Mbps | | |
| | **Audio output** | 2-ch, RCA (Linear, 1KΩ, for VGA output and CVBS output respectively) | | |
| | **Audio bitrate** | 64 Kbps | | |
| | **Dual-stream** | Support | | |
| | **Stream type** | Video, Video & Audio | | |
| | **Synchronous playback** | 4-ch | 8-ch | 16-ch |
| | **Playback resolution** | 1080P / 720P / VGA / WD1 / 4CIF / CIF / QVGA / QCIF | | |
| **Network management** | **Remote connection** | 128 | | |
| | **Network protocols** | TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™ | | |
| **Hard disk** | **Type** | 8 SATA interfaces for 8 HDDs; 1 eSATA interface | | |
| | **Capacity** | Up to 4 TB capacity for each disk | | |
| **External interface** | **Network interface** | 2; 10M / 100M / 1000M self-adaptive Ethernet interfaces | | |
| | **Serial interface** | RS-232, RS-485, Keyboard; | | |
| | **USB port** | 3 ×USB2.0 | | |
| | **Alarm in / out** | 16 / 4 | | |
| **General** | **Power supply** | 100 ~ 240VAC, 47 ~ 63HZ | | |
| | **Consumption (without hard disks)** | Max. 35W | Max. 45W | Max. 65W |
| | **Working temperature** | -10 ℃~+55 ℃ (14 ℉ ~ 131 ℉) | | |
| | **Working humidity** | 10% ~ 90% | | |
| | **Chassis** | 19-inch rack-mounted 2U chassis | | |
| | **Dimensions** | 445 ×470 ×90 mm (17.5 ×18.5 ×3.5 inch) | | |

| | | |
|---|---|---|
| | **(W ×D ×H)** | |
| | **Weight (without hard disks or DVD-R/W)** | ≤8Kg |

# HDD Storage Calculation Chart

The following chart shows an estimation of storage space used based on recording at one channel for an hour at a fixed bit rate.

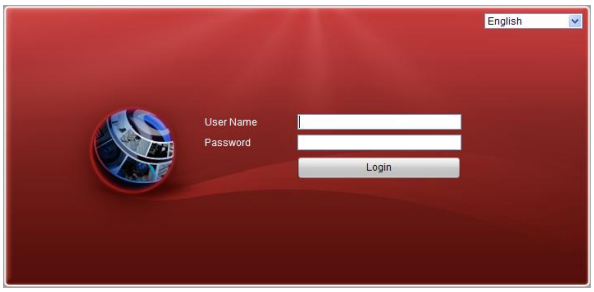
| Bit Rate | Storage Used |
|---|---|
| 96K | 42M |
| 128K | 56M |
| 160K | 70M |
| 192K | 84M |
| 224K | 98M |
| 256K | 112M |
| 320K | 140M |
| 384K | 168M |
| 448K | 196M |
| 512K | 225M |
| 640K | 281M |
| 768K | 337M |
| 896K | 393M |
| 1024K | 450M |
| 1280K | 562M |
| 1536K | 675M |
| 1792K | 787M |
| 2048K | 900M |
| 4096K | 1800M |
| 8192K | 3600M |
| 16384K | 7200M |

Please note that supplied values for storage space used are just for reference. Storage space used is estimated by formulas and may have some deviation from actual value.

# Accessing by Web Browser

## Logging In

You can get access to the device via web browser. Open web browser, input the IP address of the device and then press Enter. The login interface appears.



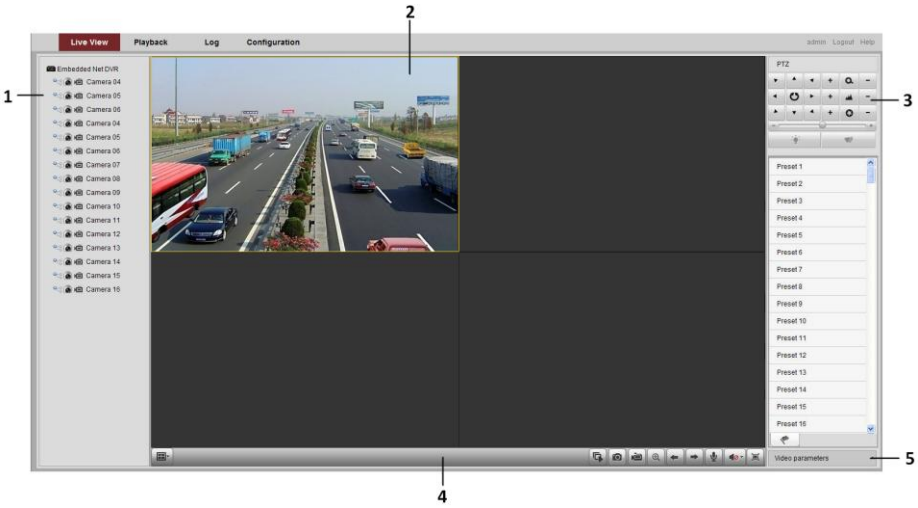

Input the user name and password, and click the **Login** button.

- You may use one of the following listed web browsers: Internet Explorer 6.0, Internet Explorer 7.0, Internet Explorer 8.0, Internet Explorer 9.0, Internet Explorer 10.0, Apple Safari, Mozilla Firefox, and Google Chrome.
- The supported resolutions include 1024*768 and above.
- The default IP address is 192.0.0.64.
- The default user name is admin, and password is 12345.

When you log in for the first time, the system will remind you to install the Plug-in control. After the installation, you can configure and manage the device remotely.

## Live View

The live view interface appears by default when you log in the device.




**Interface Introduction**

| No. | Name | Description |
|---|---|---|
| **1** | Channel List | Displays the list of channels and the playing and recording status of each channel. |
| **2** | Live View Window | Displays the image of channel, and multi-window division is supported. |

| No. | Name | Description |
|---|---|---|
| 3 | Play Control Bar | Play control operations are supported. |
| 4 | PTZ Control | Pan, tilt, zoom operations are supported, as well as preset editing and calling.<br>NOTE<br>PTZ function can only be realized if the connected camera supports PTZ control. |
| 5 | Video Parameters Configuration | Brightness, contrast, saturation and hue of the image can be edited. |

**Start Live View**

***Steps:***

1. In the live view window, select a playing window by clicking the mouse.
2. Double click a camera from the device list to start the live view.
3. You can click the button on the toolbar to start the live view of all cameras on the device list.

   Refer to the following table for the description of buttons on the live view window:

| Icon | Description | Icon | Description |
|---|---|---|---|
| | Select the window-division mode | | Previous page |
| | Start/Stop all live view | | Next page |
| | Capture pictures in the live view mode | | Open/Close audio |
| | Start/Stop all recording | | Start/Stop two-way Audio |
| | Enable/Disable digital zoom | | Adjust volume |

## Recording

***Before you start***

Make sure the device is connected with HDD or network disk, and the HDD or network disk has been initialized for the first time to use.

Two recording types can be configured: Manual and Scheduled. The following section introduces the configuration of scheduled recording.

***Steps:***

1. Click **Remote Configuration> Camera Settings> Record Schedule** to enter Record Schedule settings interface.
2. Select the camera to configure the record schedule.
3. Check the checkbox of **Enable Record Schedule** to enable recording schedule.
4. Click **Edit** to edit record schedule.
5. Choose the day in a week to configure scheduled recording.

1) Configure All Day or Customize Record:

- If you want to configure the all-day recording, please check the **All Day** checkbox.
- If you want to record in different time sections, check the **Customize** checkbox. Set the Start Time and End Time.

NOTE

The time of each segment cannot be overlapped. Up to 8 segments can be configured.

2) Select a **Record Type**. The record type can be Continuous, Motion, Alarm, Motion & Alarm, and Motion | Alarm.

3) Check the checkbox of **Select All** and click **Copy** to copy settings of this day to the whole week. You can also check any of the checkboxes before the date and click **Copy**.

4) Click **OK** to save the settings and exit the Edit Schedule interface.

6. Click **Advanced** to configure advanced record parameters**.**

7. Click **Save** to validate the above settings.

## Playback

**Interface Introduction**

| No. | Name | Description |
|---|---|---|
| **1** | Channel List | Displays the list of channels and the playing status of each channel. |
| **2** | Playback Window | Displays the image of channel. |
| **3** | Play Control Bar: | Play control operations are supported. |
| **4** | Time Line | Displays the time bar and the records marked with different colors. |
| **5** | Playback Status | Displays the playback status, including channel number and playback speed. |
| **6** | Calendar | You can select the date to play. |

**Start Playback**

***Steps:***

1. Click **Playback** on the menu bar to enter playback interface.
2. Click the camera from the device list for playback.

3. Select the date from the calendar and click **Search**.
4. Click the **Play** button to play the video file searched on the current date.
5. Use the buttons on the toolbar to operate in playback mode.

| Button | Description | Button | Description |
|---|---|---|---|
| | Play/Pause | | Stop |
| | Slow down | | Speed up |
| | Play by single frame | | Capture |
| | Stop all playback | | Download |
| | Video clip | | Open/Close audio |
| | Full Screen | | |

6. You can drag the progress bar with the mouse to locate the exact playback point. You can also input the time in the textbox

and click button to locate the playback point.

   The color of the video on the progress bar stands for the different video types.

## Log

You can view and export the log files at any time, including operation, alarm, exception and information of device.

***Before you start***

The Log function can be realized only when the device is connected with HDD or network disk. And make sure the HDD or network disk has been initialized for the first time to use.

***Steps:***

1. Click **Log** on the menu bar to enter the Log interface.
2. Set the log search conditions to refine your search, including the Major Type, Minor Type, Start Time and End Time.
3. Click the **Search** button to start searching log files.
4. The matched log files will be displayed on the list shown below.

Up to 100 log files can be displayed on each page.

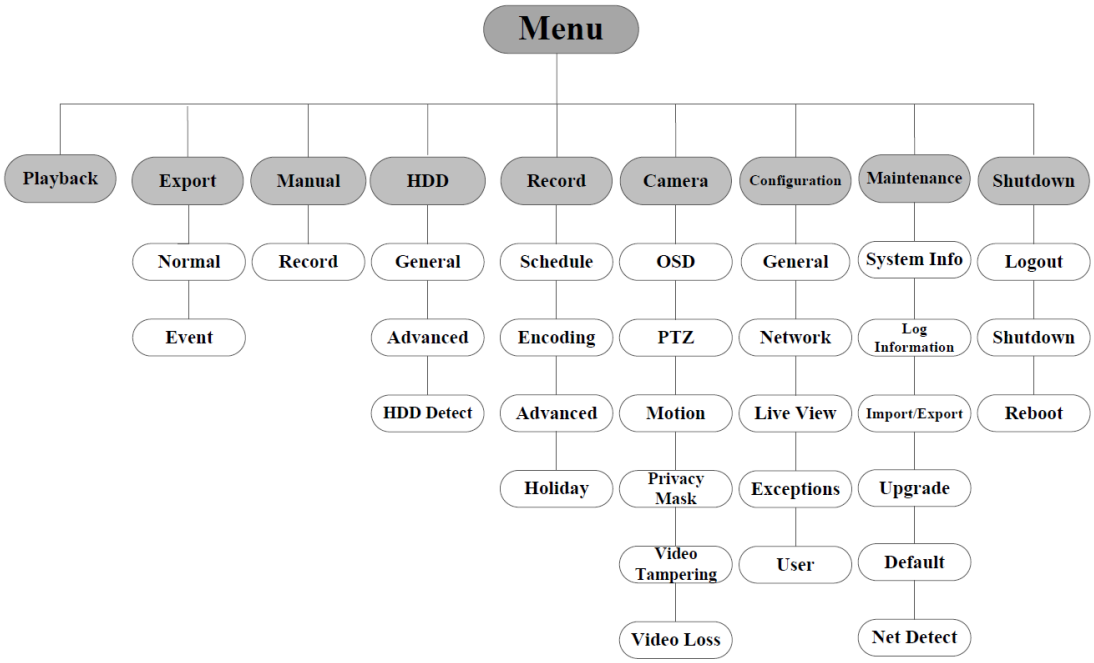
You can click the 

button to save the searched log files to local directory.

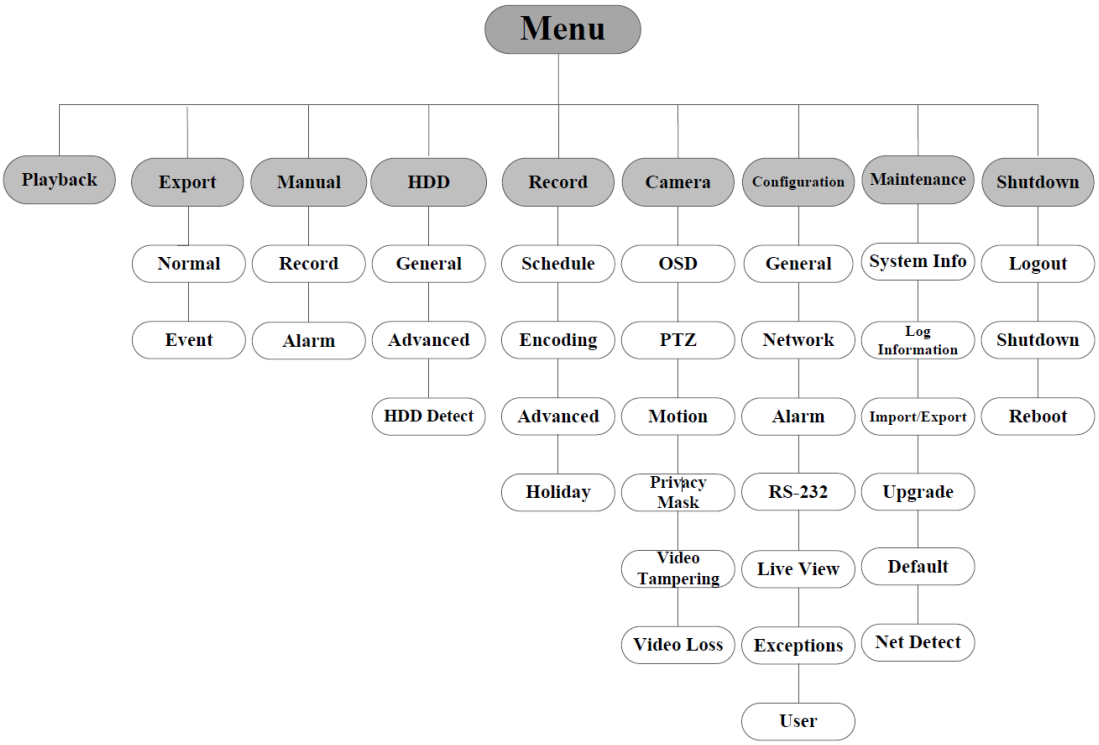
# Menu Operation

## Menu Structure

The menu structure of the DS-7200HFHI-SL&SE&ST DVR is shown below:




The menu structure of the DS-7300HFHI-ST&SL & DS-8100HFHI-ST&SL DVR is shown below:




## Startup and Shutdown

Proper startup and shutdown procedures are crucial to expand the service time of the DVR.

**To start the DVR:**

Check the power supply is plugged into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. Turn on the power switch on the rear panel; the

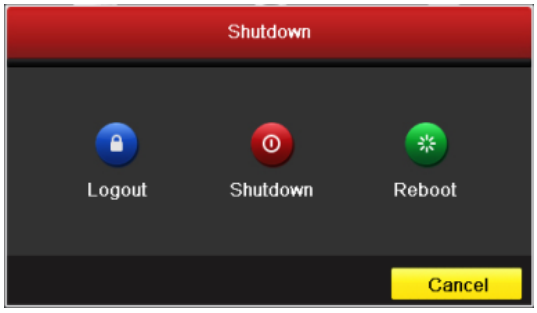
Power indicator LED on the front panel should be yellow.

**To shut down the DVR:**

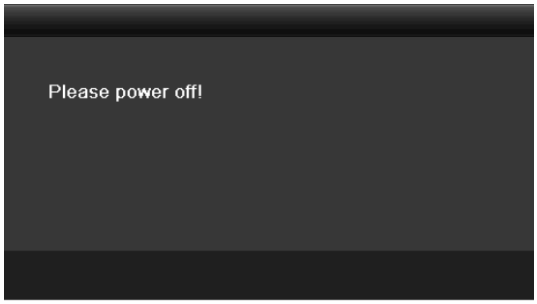
***Steps:***

1. Enter the Shutdown menu.

   Menu > Shutdown




2. Select the **Shutdown** button.
3. Click the **Yes** button.
4. Turn off the power switch on the rear panel when the note appears (supported by DS-7200HFHI-SE and DS-7200HFHI-SL series).




After the device starting up, the wizard will guide you through the basic settings, including edting password, date and time settings, network settings, HDD initializing, and recording.

## Live View

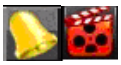
Some icons are provided on screen in Live View mode to indicate different camera status. These icons include:

**Live View Icons**

In the live view mode, there are icons at the right top of the screen for each channel, showing the status of the record and alarm in the channel, so that you can find problems as soon as possible.

Indicating that there is an alarm or are alarms. Alarm includes (video loss, tampering, motion detection or sensor alarm, etc.).

Recording (manual record, continuous record, motion detection or alarm triggered record)

 Alarm & Recording

## Record Settings

***Before you start:***

Make sure that the HDD has already been installed. If not, please install a HDD and initialize it. You may refer to the user manual for detailed information.

***Purpose:***

Two kinds of record types are introduced in the following section, including Instant Record and All-day Record. And for other record types, you may refer to the user manual for detailed information.

NOTE

After rebooting all the manual records enabled are canceled.

## Instant Recording

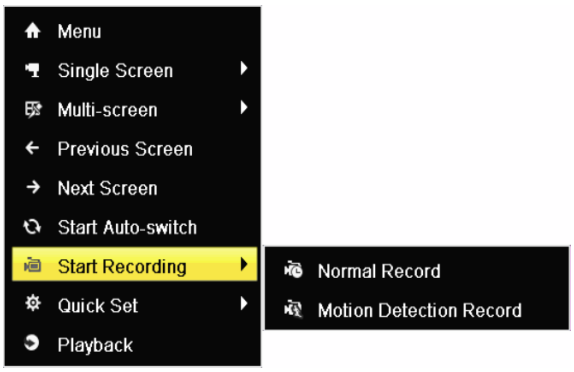
On the live view window of each channel, there is a quick setting toolbar which shows on the bottom of the window when you click on it.

Click the icon to enable the record, and the icon turns to . And click icon to disable the record, then the icon turns to .

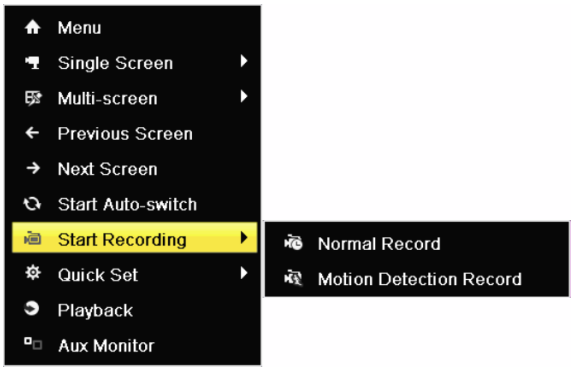
## All-day Recording

Perform the following steps to set the all-day recording.

On the live view window, right lick the window and move the cursor to the Start Recording option, and select Normal Record or Motion Detection Record on your demand.




Right-click Menu of DS-7200HFHI-SL&SE&ST




Right-click Menu of DS-7300HFHI-ST&SL & DS-8100HFHI-ST&SL

And click the **Yes** button in the popup Attention message box to confirm the settings. Then all the channels will start to record in the selected mode.

## Playback

Play back the record files of a specific channel in the live view menu.

- **OPTION 1:**

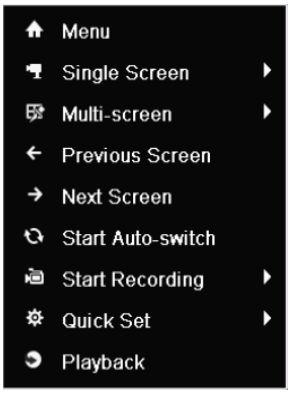
Choose a channel under live view using the mouse and click the button in the shortcut operation menu.

Only record files recorded during the last five minutes on this channel will be played back.

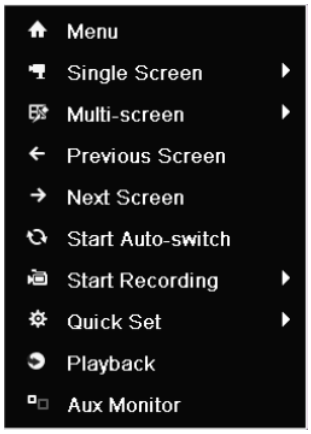
- **OPTION 2:**

1. Enter the Playback menu.

   Right click a channel in live view mode and select Playback from the menu.




DS-7200HFHI-SL&SE&ST




DS-7300HFHI-ST&SL & DS-8100HFHI-ST&SL

To the DS-7300HFHI-ST&SL and DS-8100HFHI-ST&SL series DVR, pressing numerical buttons on the front panel will switch playback to related channels during playback process.

2. Playback management.

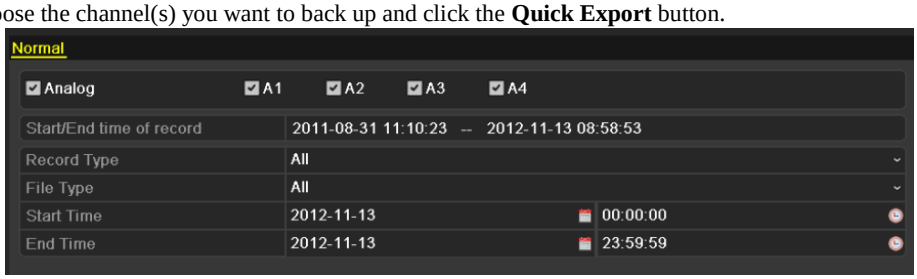
   The toolbar in the bottom part of Playback interface can be used to control playing process.

Just check the channel or channels if you want to switch playback to another channel or execute simultaneous playback of multiple channels.

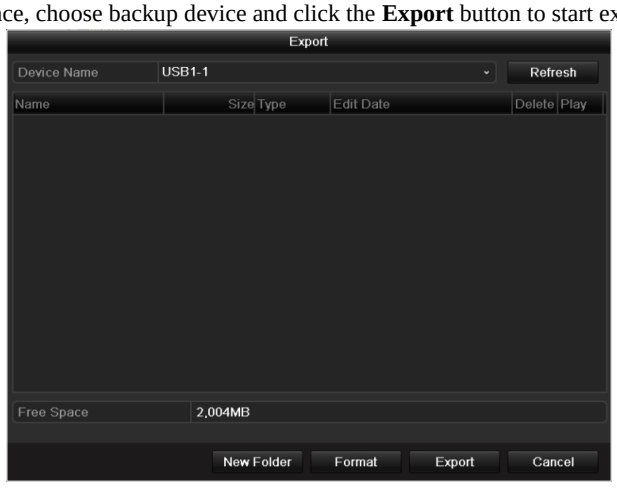
## Backup

Recorded files can be backed up to various devices, such as USB flash drives, USB HDDs or USB DVD writers.
To export recorded files:

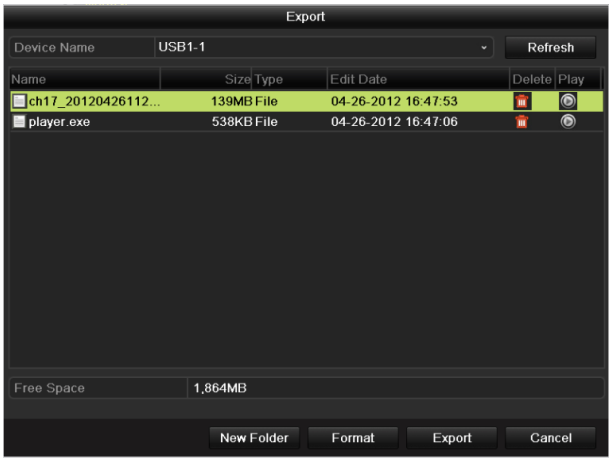
1. Enter Video Export interface.
   Choose the channel(s) you want to back up and click the **Quick Export** button.




2. Enter Export interface, choose backup device and click the **Export** button to start exporting.




3. Check backup result.
   Choose the record file in Export interface and click button to check it.


Export
Device Name
USB1-1
Refresh
Name
Size
Type
Edit Date
Delete
Play
ch17_20120426112...
139MB
File
04-26-2012 16:47:53
player.exe
538KB
File
04-26-2012 16:47:06
Free Space
1,864MB
New Folder
Format
Export
Cancel

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